

ENVIRONMENTAL PROTECTION COMMISSION[567]

Adopted and Filed

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby amends Chapter 23, "Emission Standards for Contaminants," Chapter 25, "Measurement of Emissions," and Chapter 34, "Provisions for Air Quality Emissions Trading Programs," Iowa Administrative Code.

The purpose of the adopted amendments is to remove from the state air quality rules EPA's Clean Air Mercury Rule (CAMR) provisions that were vacated by the United States Court of Appeals for the District of Columbia Circuit (the D.C. Court). The Department is also adding new mercury monitoring provisions to the state air quality rules.

Notice of Intended Action was published in the Iowa Administrative Bulletin on March 11, 2009, as **ARC 7622B**. A public hearing was held on April 13, 2009. No oral or written comments were presented at the hearing. At the request of EPA Region VII, the Department extended the public comment period. An Amended Notice of Intended Action was published in the Iowa Administrative Bulletin on May 6, 2009, as **ARC 7738B**, extending the public comment period to May 12, 2009. Seven written comments were received prior to the close of the public comment period.

The submitted comments and the Department's response to the comments are summarized in a public responsiveness summary available from the Department.

The Department received comments in support of rescinding the federal CAMR provisions that were adopted by reference into state air quality rules. The D.C. Court found the regulations to be unauthorized under the Clean Air Act (CAA) or otherwise deficient. Although the D.C. Court vacated the federal regulations, these regulations were adopted by reference and therefore were still in effect and enforceable by the Department.

The CAMR program was intended to reduce mercury emissions from coal-fired electric utility steam generating units (EGUs) at the national level and was based upon the state's participation in an EPA-managed mercury emissions trading program. Since the federal regulations were vacated, EPA will not be running the trading program, nor will EPA be implementing any of the other CAMR provisions vacated by the D.C. Court. This negates the need for Iowa to retain the federal regulations that were adopted by reference.

The Department did not receive any comments opposing removal of the federal CAMR provisions. The Department is proceeding with adopting rules to remove the federal CAMR provisions as detailed in the following explanations for Items 1, 2, 3 and 5.

The Department received comments opposing the proposed mercury monitoring provisions. The commenters generally asserted that the department should not require additional mercury monitoring, but also suggested some alternatives to the proposed amendments. The Department also received comments from EPA Region VII commending the Department for proposing mercury monitoring requirements, while suggesting technical corrections and clarifications.

The Department is proceeding with adopting rules to require mercury monitoring because the Department has determined that the additional data collected will allow for more current and accurate emissions estimates to support emissions inventory reporting and the development of appropriate federal and state air quality standards for mercury. The data will also be helpful in evaluating mercury deposition and the identification of water bodies in the state where additional fish tissue sampling for mercury could be conducted. In response to public comment, the Department revised the mercury monitoring provisions from those proposed in the Notice, as described in the explanation for Item 4.

Item 1 amends paragraph 23.1(2)"z," which includes new source performance standards for electric utility steam generating units (EGUs). The amendment removes the provisions associated with CAMR for mercury emissions from coal-fired units constructed or reconstructed after January 30, 2004, but retains the performance standards and requirements for other pollutants emitted from EGUs that are

subject to the provisions of this paragraph. The Department is removing the mercury provisions because the D.C. Court vacated the federal CAMR program.

The Department has made an additional change in response to comments that the existing description for “electrical utility steam generating unit” could be misconstrued to apply to units not intended to be affected by these standards. The Department agrees with this comment. Since paragraph 23.1(2)“z” adopts a federal standard by reference (40 CFR 60, Subpart Da), the Department has removed the existing definition and replaced it with the exact definition from Subpart Da.

Item 2 amends subrule 23.1(4) to strike the text that provides cross references to the standards for mercury emissions from electric utility steam generating units (EGUs). Because this rule making removes the federal CAMR provisions from the administrative rules, this cross reference is no longer valid.

Item 3 rescinds paragraph 23.1(5)“d” which contains a cross reference to the emission guidelines for mercury for coal-fired EGUs. The emission guidelines are a component of the federal CAMR program, which was vacated by the D.C. Court. Because this rule making rescinds the provisions in Chapter 34 that are referenced in this paragraph, this cross reference is no longer valid.

Item 4 rescinds rule 567—25.3(455B) and adopts a new rule 567—25.3(455B). The rescinded rule adopted by reference the provisions for continuous emissions monitoring for CAMR and is being rescinded because the D.C. Court vacated the federal CAMR program.

The adopted rule includes provisions for mercury monitoring and testing that were proposed as amendments to rule 567—34.307(455B) in Item 6 of the Notice. The provisions have been moved from Chapter 34 to Chapter 25 because Chapter 34 was established for air quality emissions trading programs, such as the Clean Air Interstate Rule (CAIR) and CAMR, and because the vacated federal CAMR provisions have been removed from Chapter 34 and other state air quality rules.

Additionally, in response to the comments received, the Department has revised the adopted mercury monitoring requirements from those proposed in the Notice to increase accuracy in reported mercury emissions and to allow utilization of the appropriate mercury test methods. Also in response to comments, the Department has removed references to the vacated federal CAMR rules from the adopted amendments and replaced the references with the applicable terms and descriptions.

Several commenters noted that the proposed quarterly coal sampling may not provide sufficient data to estimate mercury emissions from affected sources and that significant costs could be imposed on some facilities to complete the sampling. Also, coal sampling is generally not being used at this time by EPA or other state agencies as a stand-alone method for estimating mercury emissions. Based on these considerations, the Department has determined that quarterly coal sampling is not an effective mercury emissions monitoring option and has removed this option from the adopted amendments.

Based on the comments received and further review of the available information, the Department considers stack testing to be the best option currently available for estimating mercury emissions from the coal-fired electric utility steam generating units affected by these amendments. In the absence of continuous emissions monitoring, conducting stack testing at regular intervals is a recognized method for obtaining periodic emissions data.

After considering the comments, the Department has limited the allowable test methods to those methods that will allow quantification of both the vapor phase mercury concentration and the particle bound mercury concentration. In response to comments submitted by EPA, a schedule for conducting the required testing has been added in the adopted amendments.

Based on the Department’s consideration of the comments related to mercury stack testing, the adopted amendments require that affected sources conduct one stack test for mercury in each calendar quarter for four consecutive calendar quarters, commencing no later than the third calendar quarter in 2010 (July 1 – September 30). At such time as this testing is completed and valid results are accepted by the Department, the owner or operator of an affected source may reduce the testing frequency to one test in each subsequent calendar year.

The adopted amendments include a provision allowing the owner or operator of an affected source to request “low mass emitter” (LME) classification and to be exempt from the quarterly stack testing requirements. Several commenters requested that the eligibility criteria to qualify as an LME be

clarified. In response to these comments, the adopted amendments provide that to qualify for the LME classification, the owner or operator must perform one stack test for mercury. Based on the results of the highest mercury concentration shown from any of the test runs, the owner or operator shall submit the test results and calculations sufficient to demonstrate that potential, annual mercury emissions are less than or equal to 29 lb/year.

In response to comments, the provisions in the Notice regarding mercury continuous emission monitoring systems (CEMS) have been revised to include provisions that owners and operators of affected sources may request that the Department allow mercury CEMS data in lieu of four, consecutive calendar quarters of mercury stack test data. Owners and operators are required to continue conducting the four quarters of stack testing unless and until the Department approves the use of CEMS.

As part of EPA's process of establishing new rules to replace CAMR, EPA published a proposed information collection request (ICR) in the Federal Register on July 2, 2009. EPA will require approximately 123 facilities nationally with approximately 214 coal-fired units to conduct stack testing for mercury, most likely in 2010. EPA proposes to require mercury testing and concurrent coal sampling and analysis from three affected sources in Iowa. The recommended stack test methods outlined in EPA's proposed ICR methods are consistent with the methods specified in the adopted amendments. The adopted amendments allow owners and operators of affected sources to request that the Department count EPA-required testing towards fulfilling all or part of the state's mercury testing requirements.

Item 5 rescinds rules 567—34.300(455B) through 567—34.308(455B), including Tables 3A and 3B. The rescinded rules included the provisions of CAMR adopted to implement the federal requirements for the program, including allocation of emissions allowances. As noted above, the D.C. Court vacated the federal CAMR program in its entirety. The adopted amendments include a note that explains the vacatur and indicates that adoption of the federal provisions for CAMR is rescinded. The rules are reserved as placeholders for future air emissions trading programs. The adopted amendments consolidate the removal of the CAMR provisions proposed in the Notice in Items 5, 6 and 7.

These amendments are intended to implement Iowa Code section 455B.133.

These amendments will become effective on November 11, 2009.

The following amendments are adopted.

ITEM 1. Amend paragraph **23.1(2)“z”** as follows:

z. Electric utility steam generating units. An electric utility steam generating unit that is capable of combusting more than 250 million Btus per hour (73 megawatts) heat input of fossil fuel for which construction or modification or reconstruction is commenced after September 18, 1978, or an electric utility combined cycle gas turbine that is capable of combusting more than 250 million Btus per hour (73 megawatts) heat input. ~~An electric utility steam generating unit is any fossil fuel fired combustion unit of more than 25 megawatts electric (MW) that serves a generator that produces electricity for sale. A unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MW output to any utility power distribution system for sale is also an electric utility steam generating unit. This standard also includes a provision for mercury emissions for any coal-fired electric utility steam generating unit other than an integrated gasification combined cycle electric steam generating unit, for which construction or reconstruction commenced after January 30, 2004. “Electric utility steam generating unit” means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW net-electrical output to any utility power distribution system for sale. Also, any steam supplied to a steam distribution system for the purpose of providing steam to a steam electric generator that would produce electrical energy for sale is considered in determining the electrical energy output capacity of the affected facility.~~ (Subpart Da)

ITEM 2. Amend subrule 23.1(4), introductory paragraph, as follows:

23.1(4) Emission standards for hazardous air pollutants for source categories. The federal standards for emissions of hazardous air pollutants for source categories, 40 Code of Federal Regulations Part 63 as amended or corrected through July 22, 2008, are adopted by reference, except those provisions which cannot be delegated to the states. The corresponding 40 CFR Part 63 subpart

designation is in parentheses. An earlier date for adoption by reference may be included with the subpart designation in parentheses. 40 CFR Part 63, Subpart B, incorporates the requirements of Clean Air Act Sections 112(g) and 112(j) and does not adopt standards for a specific affected facility. Test methods (Appendix A), sources defined for early reduction provisions (Appendix B), and determination of the fraction biodegraded (F_{bio}) in the biological treatment unit (Appendix C) of Part 63 also apply to the affected activities or facilities. For the purposes of this subrule, “hazardous air pollutant” has the same meaning found in 567—22.100(455B). For the purposes of this subrule, a “major source” means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless a lesser quantity is established, or in the case of radionuclides, where different criteria are employed. For the purposes of this subrule, an “area source” means any stationary source of hazardous air pollutants that is not a “major source” as defined in this subrule. Paragraph 23.1(4) “a,” general provisions (Subpart A) of Part 63, shall apply to owners or operators who are subject to subsequent subparts of 40 CFR Part 63 (except when otherwise specified in a particular subpart or in a relevant standard) as adopted by reference below. ~~The provisions of 40 CFR Part 60, Subparts A, B, Da, and HHHH for the Clean Air Mercury Rule (CAMR), are found at subrules 23.1(2) and 23.1(5) and in 567—Chapter 34.~~

ITEM 3. Rescind paragraph **23.1(5)“d.”**

ITEM 4. Rescind rule 567—25.3(455B) and adopt the following **new** rule in lieu thereof:

567—25.3(455B) Mercury emissions testing and monitoring. Any stationary, coal-fired boiler or stationary, coal-fired combustion turbine serving, at any time since the later of November 15, 1990, or the start-up of the unit’s combustion chamber, a generator with a nameplate capacity of more than 25 megawatt electrical (MWe) producing electricity for sale is an affected source under the provisions of this rule.

25.3(1) Testing frequency and methods. The owner or operator of an affected source shall complete one stack test for mercury in each calendar quarter for four consecutive calendar quarters. Testing shall commence no later than the third calendar quarter in 2010 (July 1 – September 30). At such time as four consecutive quarterly stack tests are completed and the test results are approved in writing by the department, the owner or operator of an affected source shall complete one stack test for mercury in each subsequent calendar year. Stack testing to fulfill the requirements of this subrule shall meet the following conditions:

a. Stack testing shall be conducted according to U.S. EPA Method 29 or according to ASTM Method D6784-02 (Ontario Hydro Method) and shall quantify both vapor phase and particulate bound mercury. Each stack test shall consist of a minimum of three runs at the normal operating load while combusting coal, and the minimum time per run shall be two hours.

b. The owner or operator or the owner’s authorized agent shall notify the department in writing not less than 30 days before each stack test. The notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Upon written request, the department may allow a notification period of less than 30 days. At the department’s request, a pretest meeting shall be held no later than 15 days before the scheduled test date. A testing protocol shall be submitted to the department no later than 15 days before the scheduled test date. A representative of the department shall be permitted to witness the tests. Within six weeks of the completion of the testing, the results of the tests shall be submitted in writing to the department in the form of a comprehensive test report.

25.3(2) Low mass emitter (LME). In lieu of complying with the requirements of 25.3(1), the owner or operator of an affected source may submit a written request to the department to be classified as a low mass emitter (LME) for mercury. To be eligible for LME classification by the department, the owner or operator shall meet the following conditions:

a. The owner or operator shall complete at least one stack test prior to July 1, 2010, according to U.S. EPA Method 29 or according to ASTM Method D6784-02 (Ontario Hydro Method) and shall quantify both vapor phase and particulate bound mercury. Each stack test shall consist of a minimum of three runs at the normal operating load while combusting coal, and the minimum time per run shall be two hours.

b. The owner or operator or the owner's authorized agent shall notify the department in writing not less than 30 days before each stack test. The notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held no later than 15 days before the scheduled test date. A testing protocol shall be submitted to the department no later than 15 days before the scheduled test date. A representative of the department shall be permitted to witness the tests. Within six weeks of the completion of the testing, the results of the tests shall be submitted in writing to the department in the form of a comprehensive test report.

c. Using the highest mercury concentration measured from any of the stack test runs, the owner or operator shall submit documentation to the department sufficient to demonstrate that the potential annual mercury emissions from the affected source are less than or equal to 29 pounds (464 ounces) per year.

d. Upon written notification of LME classification by the department, the owner or operator of an affected source shall be exempt from the requirements of 25.3(1).

e. If at any time the potential annual mercury emissions from the affected source exceed 29 pounds per year, it shall be the responsibility of the owner or operator of the affected source to notify the department in writing within 30 days.

25.3(3) Continuous emission monitoring systems (CEMS). In lieu of complying with the requirements of 25.3(1), the owner or operator of an affected source may submit a request to the department to record mercury emissions data using a continuous emission monitoring system (CEMS). To be eligible for department approval to use CEMS, the owner or operator shall meet the following conditions:

a. The owner or operator shall complete at least one stack test concurrently with operating and recording data from the CEMS prior to September 30, 2010, and thereafter on an annual basis, to demonstrate that the CEMS are providing accurate emissions data, as follows:

(1) The stack test conducted concurrently with the CEMS shall be conducted according to U.S. EPA Method 29 or according to ASTM Method D6784-02 (Ontario Hydro Method) and shall quantify both vapor phase and particulate bound mercury. Each stack test shall consist of a minimum of three runs at the normal operating load while combusting coal, and the minimum time per run shall be two hours.

(2) While conducting the concurrent stack test, the owner and operator shall perform a relative accuracy test audit (RATA) and other CEMS certification procedures according to an approved EPA performance protocol. If an approved EPA performance protocol is not available, the owner or operator may submit an alternative CEMS certification protocol in writing to the department for approval. Department approval must be received before the owner or operator conducts the CEMS certification.

b. The owner or operator or the owner's authorized agent shall notify the department in writing not less than 30 days before each stack test conducted concurrently with CEMS. The notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held no later than 15 days before the scheduled test date. Protocols for the stack testing and for the concurrent CEMS operation and data collection shall be submitted to the department no later than 15 days before the scheduled test date. A representative of the department shall be permitted to witness the tests. Results of the tests and CEMS certification shall be submitted in writing to the department in the form of a comprehensive test and CEMS certification report within six weeks of the completion of the testing.

c. The owner or operator of an affected source shall comply with the provisions of 25.3(1) until such time as the department approves use of CEMS.

d. Upon receiving department approval for CEMS use, the owner or operator of an affected source shall operate and record CEMS data, including calibrating each individual CEMS for zero and span on a daily basis, and shall provide all CEMS data to the department upon written request. CEMS certification shall be completed on an annual basis according to the procedures specified in paragraph 25.3(3)“a.”

25.3(4) *EPA-required stack testing for mercury.* If the owner or operator of an affected source is required by EPA to complete stack testing for mercury, the owner or operator may submit a written request to the department that the EPA-required stack test be allowed to fulfill all or part of the testing requirements specified in 25.3(1). The department shall consider each such request on a case-by-case basis.

25.3(5) *Affected sources subject to Section 112(g).* The owner or operator of an affected source subject to the requirements of Clean Air Act Section 112(g) shall comply with the requirements contained in permits issued by the department under 567—Chapters 22 and 33.

ITEM 5. Rescind and reserve rules **567—34.300(455B)** to **567—34.308(455B)** and add the following note after each rescinded rule:

*As of November 11, 2009, the requirements for the Clean Air Mercury Rule (CAMR) are rescinded and the adoption by reference of federal regulations associated with CAMR is also rescinded. On March 14, 2008, the United States Court of Appeals for the District of Columbia Circuit issued its mandate to vacate the federal CAMR regulations in their entirety.

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EDITOR’S NOTE: For replacement pages for IAC, see IAC Supplement 10/7/09.